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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/785,123 | 02/16/2001 | Jason Sodergren | DGI-103-PA | 4159 |

7590 07/02/2004

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EXAMINER

SHINGLES, KRISTIE D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2141

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/785,123

Applicant(s)

SODERGREN, JASON

Examiner

Kristie Shingles

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claims 1-14 are pending.

Priority

1. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 120. The certified copy has been filed in parent Provisional Application No. 60/186,533, filed on 03/02/2000.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 8, 9, 13 and 14. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheets should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: "FIGS. 1 through 24" on page 14 should read "FIGS. 1 through 11". Appropriate correction is required.

Claim Objections

4. Claim 9 is objected to because of the following informalities: use of "and" in series, should be in the alternative "or". Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1 and 8 are rejected under 35 U.S.C. 112, first paragraph for reciting a single means or step. Under 35 U.S.C. 112, first paragraph, the enabling disclosure of the specification must be commensurate in scope with the claim under consideration. The claim recites a single means or step and hence it covers every conceivable means for achieving the stated result, while the specification discloses at most only those means known to the inventor. See MPEP § 2164.08(a). *In re Hyatt*, 218 USPQ 195 (CAFC 1983).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 3, 5-7, and 9-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Treyz et al (U.S. 6,526,335).

a. Per claim 10, Treyz et al teaches a method of using the multi-protocol adapter according to claim 1 comprising the following steps interacting between the adapter and multiple devices using multiple protocols (col.11 lines 29-31; any suitable protocol may be used for wireless transmission).

b. Per claim 11, Treyz et al teaches a method of using the multi-protocol adapter according to claim 10 wherein the step of interacting between the adapter and multiple devices using multiple protocols being simultaneously interacting (col.55 lines 3-24, makes use of multiple protocols based on the transmission frequency of an identified device).

c. Per claim 3, Treyz et al teaches a multi-protocol adapter having circuitry and programs for in-vehicle and non-vehicle networks according to claim 1, the adapter further comprising an embedded operating system (col.18 lines 41-43; makes use of an operating systems).

d. Per claim 5, Treyz et al teaches a multi-protocol adapter having circuitry and programs for in-vehicle and non-vehicle networks according to claim 3 wherein the embedded operating system comprises Linux operating system (col.18 lines 44-53; operating system may be Linux).

e. Per claim 6, Treyz et al teaches a multi-protocol adapter having circuitry and programs for in-vehicle and non-vehicle networks according to claim 1, the adapter further comprising definition of communication routines between the adapter and a client via a host device, and communication between the adapter and the client after definition of communication routines between the adapter and the client (col.10 lines 35-63, col.11 lines 10-37, col.12 lines 21-63, and col.24 lines 38-55; communication routines are achieved through wireless links or local links allowing for communication between the user and a remote host as well as to devices on the interior of the vehicle).

f. Per claim 7, Treyz et al teaches a multi-protocol adapter having circuitry for use with programs for in-vehicle and non-vehicle networks according to claim 1, the adapter further comprising a TCP/IP connection established between two software elements, the connection of serial multiplex network messages between software entities being generalized without knowledge of a specific type of multiplex network (col.55 lines 20-23; various communication protocols can be used—inclusive of TCP/IP—based upon the device and the content being transmitted).

g. Per claim 9, Treyz et al teaches a program for use with a multi-protocol adapter for in-vehicle and non-vehicle networks, the program according to claim 8 further comprising at least one of message scheduler, a message responder, a message filter and a script loader (col.17

lines 63-col.18 lines 1-8 and col.59 lines 3-31; possesses server configurability along with the ability to filter and respond to messages specific to the user).

h. Per claim 12, Treyz et al teaches the multi-protocol adapter according to claim 1 further comprising an on-board web server (col.22 lines 20-64; use of web-based interface provides for use of Internet and web browsers).

i. Per claim 13, Treyz et al teaches the multi-protocol adapter according to claim 12 further comprising communication between users of the adapter and the adapter via a web browser technology (col.20 lines 62-col.21 lines 1-6 and col.65 lines 46-49; web-based interface provides for implementation of web browser technology).

j. Per claim 14, Treyz et al teaches the multi-protocol adapter according to claim 13 further comprising communication between users of the adapter and the adapter via a web browser with HTML (col. 58 lines 39-46; allows for communication via a web browser with HTML).

9. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by Tang et al (U.S. 6,298,370).

Tang et al teaches a multi-protocol adapter having circuitry and programs for in-vehicle and non-vehicle networks, the adapter comprising:

- an integrated CPU having an embedded operating system (Fig.1 and col.14 lines 11-24);
- the CPU having simultaneous interaction between at least one multiple device using multiple protocols (col.86 lines 22-25; different protocols are supported to different devices);

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- at least one daughter board having interconnect slots (Fig.111A and col. 103 lines 2-16);
- an interface for interconnection of the at least one daughterboard (Fig.111A and col. 103 lines 2-16; the interface is implied by the presence of the daughter card);
- a serial port for diagnostics and system maintenance (col.100 lines 25-27 and col.103 lines 35-36);
- a flash socket for storage of system software (col.101 lines 35-57);
- a slot for connection of a peripheral (col.107 lines 36-39; provides for a peripheral component interconnection);
- a socket for connection of RAM (Fig.52 and col.7 lines 14-17; uses a dual port memory DPRAM);
- an interface for connection of system RAM (col.107 lines 66-col.108 lines 1-17);
- an interface for connection of mass-storage devices (col.6 lines 16-21 and col.101 lines 49-57; interface is implied by the presence of Flashware being plugged into socket-slots) ;
- a battery for clock and configuration memory backup (col.78 lines 18-25; battery function is provided for from the vehicle's battery, nonetheless, a DSP clock control is implemented to control power dissipation);
- an infrared serial interface (col.106 lines 49-51 and col.103 lines 35-36); and
- a piezoelectric speaker (col.106 lines 52-56; speaker function is achieved through vehicle's installed speakers or via microphone and loudspeaker connectors).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Treyz et al in view of Tang et al (U.S. 6,298,370).

a. Treyz teaches from above a multi-protocol adapter having circuitry and programs for in-vehicle and non-vehicle networks, the adapter comprising simultaneous interaction between the adapter and at least one device using multiple protocols. However, Treyz fails to teach a multi-protocol adapter according to claim 1, further comprising at least one daughter board for expansion of the adapter. Tang et al teaches a daughter card for expansion of the adapter system (Fig. 111A and col. 103 lines 2-16).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to include a daughter card for the purpose of expanding the capabilities of the system. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Doviak et al (U.S. 6,418,324) discloses an apparatus and method for transparent wireless communication between a remote device and host system.

b. Ryan, Jr. (U.S. 6,691,183) discloses a digital device interface for transferring information between a processor and a control device including serial peripheral interfaces.

c. Herrod et al (U.S. 6,405,049) discloses a portable data device system, which includes a portable data device and a cradle for receiving the portable data device.

d. Sinibaldi et al (U.S. 6,549,945) discloses a multi-purpose WAN driver for DSP resource adapter.

e. Bailey et al (U.S. 5,548,587) discloses an asynchronous transfer mode adapter for desktop applications.

f. Reynolds et al (U.S. 5,590,313) discloses a multiple protocol device interface subsystem and method.

g. Sinibaldi et al (U.S. 5,771,232) discloses expandable local inter-system bus architecture in a multiplexed environment.

h. Jolley et al (U.S. 5,832,244) discloses a multiple interface input/output port for a peripheral device.

i. Farris et al (U.S. 6,167,253) discloses a mobile data/message/electronic mail download system utilizing network-centric protocol.

j. Holland (U.S. 6,321,091) discloses a portable locator system and method.

k. Hoffberg et al (U.S. 6,400,996) discloses an adaptive pattern recognition based control system and method.

l. Andrews et al (U.S. 5,968,158) discloses an apparatus including a host processor and communications adapters interconnected with a bus, with improved transfer of interrupts between the adapters and host processor.

m. Barnea et al (U.S. 6,396,164) discloses a method and apparatus for integrating controls.

n. Schwanz et al (U.S. 6,189,057) discloses a motor vehicle accessory interface for transferring serial data with and supplying dc power to external accessory device.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 703-605-4244. The examiner can normally be reached on Monday-Friday 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 703-305-4003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

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RUPAL DHARIA
SUPERVISORY PATENT EXAMINER

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